

REMARKS

In accordance with the foregoing, claims 1-9 and 13-15 have been amended.

Claims 1-18 are pending and under consideration.

REJECTION UNDER 35 U.S.C. § 102:

In the Office Action, at page 2, claims 1-4, 7-10, and 13-16 are rejected under 35 U.S.C. § 102 in view of U.S. Patent No. 5,151,991 to Iwasawa et al. ("Iwasawa"). This rejection is traversed and reconsideration is requested.

As described in the Specification, for example, page 4, lines 3 to 9, the parallelization directive is a sentinel to **explicitly specify statements to be processed in parallel**. Since the parallelization directive is described by a programmer, the programmer must know the parallelizability. However, Iwasawa only indicates normal programs, and does not indicate any "parallelization directive".

Fig. 2 in Iwasawa shows an example of the source program to be processed. However, in this source program of Iwasawa, there is no "parallelization directive" to explicitly specify statements to be processed in parallel.

Iwasawa fails to teach or suggest, "detecting a parallelization directive in said source program," as recited in independent claim 1, because Iwasawa in essence provides automatically determining the parallelizability. See column 2, lines 39 to 51. In particular, in column 2, lines 48 to 51, Iwasawa describes that "the user does not need to make decision and therefore the risk of an erroneous decision can be avoided or madeless." Therefore, in Iwasawa, a programmer does not determine the parallelizability.

In addition, Iwasawa is silent as to teaching or suggesting, "each processing code of at least part of the parallelization directive with a hierarchical structure in accordance with an internal structure of said parallelization directive," as recited in independent claim 1. Rather, in FIG. 5 of Iwasawa, if the processing is made sequentially from the outer loop, new analysis is not necessary for the judgment of structure convertibility and for the detection of parallelism after structure conversion and the data that have already been used may be employed. See column 6, lines 11-36. For, only minimum necessary parsing is made in order to reduce the compile time. Accordingly, Iwasawa fails to teach or suggest all the recitations of independent claim 1.

Because independent claims 7 and 13 include similar recitations as those recited in

independent claim 1, although of different scope, the arguments presented above supporting the patentability of independent claim 1 are incorporated herein to support the patentability of independent claims 7 and 13.

REJECTION UNDER 35 U.S.C. § 103:

In the Office Action, at page 4, claims 5-6, 11-12, and 17-18 are rejected under 35 U.S.C. § 103 in view of Iwasawa and "OpenMP Fortran Application Program Interface," Version 1.1. November 1999 ("OpenMP"). The rejection is traversed and reconsideration is requested.

The arguments presented above are incorporated herein to support the patentability of claims 5/1, 6/1, 11/7, 12/7, and 17/13, 18/13 over Iwasawa.

OpenMP generally provides programming using various directives; however, Iwasawa does not use any directives. As commonly understood, the Examiner bears the burden of establishing a prima facie case of obviousness based upon the prior art..."[the Examiner] can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references." In re Fritch, 23 USPQ 2d 1780, 1783 (Fed. Cir. 1992). In addition, the mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. Id. at 1783-84.

However, the Office Action does not provide adequate motivation, in compliance with current Patent rules and procedures, to combine the cited references. Rather, conclusive statements are made such as "it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of OpenMP into the system of Iwasawa, to use a list structure for parallelization detection...because one of ordinary skill in the art would have been motivated to use a well known data structure (list) particularly for the same programming language, FORTRAN, to take the advantages of the well known defined structure for the parallelization compile method and system."

"Rejection of patent application for obviousness under 35 USC §103 must be based on evidence comprehended by language of that section, and search for and analysis of prior art includes evidence relevant to finding of whether there is teaching, motivation, or suggestion to select and combine references relied on as evidence of obviousness; factual inquiry whether to

combine references must be thorough and searching, based on objective evidence of record." In re Lee 61 USPQ2d 1430 (CA FC 2002)

Thus, as pointed out in In re Lee, the record must support motivation, i.e., there must be something in the record pointing out where the recited motivation can be found. In addition, there must be some discussion on how that purported motivation or suggestion is even relevant to the reference being modified. However, the present Office Action has failed to provide where in either reference is there a teaching or suggestion to combine them when OpenMP uses directives and Iwasawa provides no description or suggestion of using directives for the parallel processing.

Only the present invention sets forth all the claimed features, as well as the motivation for combining the same. The outstanding rejection would appear to have taken this teaching of the present invention and applied the same to generate a combination of Iwasawa and OpenMP, as set forth in the Office Action, to disclose the presently claimed invention.

Accordingly, it is respectfully requested that claims 5/1, 6/1, 11/7, 12/7, and 17/13, 18/13 be allowed.

CONCLUSION:

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot, and further, that all pending claims patentably distinguish over the prior art. There being no further outstanding objections or rejections, the application is submitted as being in condition for allowance, which action is earnestly solicited.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited by the Examiner's contacting the undersigned attorney for a telephone interview to discuss resolution of such issues.


Serial No. 09/774,685

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: April 29, 2004

By: 
Alicia M. Choi
Registration No. 46,621

1201 New York Avenue, NW, Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501